

AMENDMENTS TO THE CLAIMS

Listing of Claims

This listing of claims replaces all prior versions and listings of claims in the application.

Claim 1 (Currently Amended): A resist application method comprising the steps of:

thermal processing for evaporating water from a surface of a substrate, said substrate containing amorphous silicon on the surface thereof, the step of thermal processing being performed in a first dehumidified atmosphere having a humidity below 20% including 20%;

making the surface of the substrate hydrophobic with a hydrophobic processing material of hexamethyldisilazane, the step of making the surface of the substrate hydrophobic being performed in a second dehumidified atmosphere having a humidity below 20% including 20%;
and

applying a resist onto the substrate in a humid atmosphere controlled to have a prescribed room temperature and a prescribed humidity,

~~the step of thermal processing to the step of making the substrate surface hydrophobic being performed in a dehumidified atmosphere, and~~

~~the step of applying the resist being performed in an atmosphere having a higher humidity than the dehumidified atmosphere.~~

the method further comprising the steps of:

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carrying the substrate to the step of thermal processing through a carrying compartment with a third dehumidified atmosphere therein, the third dehumidified atmosphere having a humidity below 20% including 20% and

carrying the substrate from the step of thermal processing to the step of making the surface of the substrate hydrophobic through the carrying compartment,

the humid atmosphere having the prescribed humidity higher than the first to the third dehumidified atmospheres.

Claims 2-4 (Cancelled).

Claim 5 (Currently Amended): A resist application method according to claim 1, wherein the first to the third dehumidified atmosphere is atmospheres are dehumidified air airs, nitrogen gas gases, a rare gas gases or [[a]] mixed gas gases of them.

Claims 6-7 (Cancelled).

Claim 8 (Original): A resist application method according to claim 1, wherein in the step of thermal processing, a temperature of the substrate is above 100°C including 100°C.

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Claims 9-10 (Cancelled).

Claim 11 (Original): A resist application method according to claim 5, wherein
in the step of thermal processing, a temperature of the substrate is above 100°C including
100°C.

Claim 12 (Original): A resist application method according to claim 1, wherein
in the step of making the surface of a substrate hydrophobic, the substrate surface is made
hydrophobic with a temperature of the substrate surface being above 100°C including 100°C.

Claims 13-14 (Cancelled).

Claim 15 (Original): A resist application method according to claim 5, wherein
in the step of making the surface of a substrate hydrophobic, the substrate surface is made
hydrophobic with a temperature of the substrate surface being above 100°C including 100°C.

Claims 16-17 (Cancelled).

Claim 18 (Withdrawn): A resist application device comprising:

a thermal processing unit for performing thermal processing to evaporate water from the surface of a substrate in a dehumidified atmosphere;

a hydrophobic processing unit for making the substrate surface hydrophobic with a hydrophobic processing material, keeping the dehumidified atmosphere; and

a resist application unit for applying a resist onto the substrate.

Claim 19 (Withdrawn): A resist application device according to claim 18, wherein the hydrophobic processing unit further comprises a heating means.

Claim 20 (Currently Amended): A method for fabricating a semiconductor device comprising the steps of:

thermal processing for evaporating water from a surface of a semiconductor substrate, said semiconductor substrate containing amorphous silicon on the surface thereof, the step of thermal processing being performed in a first dehumidified atmosphere having a humidity below 20% including 20%;

making the surface of the substrate hydrophobic with a hydrophobic processing material of hexamethyldisilazane, the step of making the surface of the semiconductor substrate hydrophobic being performed in a second dehumidified atmosphere having a humidity below 20% including 20%; and

applying a resist onto the semiconductor substrate in a humid atmosphere controlled to have a prescribed room temperature and a prescribed humidity,

~~the step of thermal processing to the step of making the substrate surface hydrophobic being performed in a dehumidified atmosphere, and~~

~~the step of applying the resist being performed in an atmosphere having a higher humidity than the dehumidified atmosphere.~~

the method further comprising the steps of:

carrying the semiconductor substrate to the step of thermal processing through a carrying compartment with a third dehumidified atmosphere therein, the third dehumidified atmosphere having a humidity below 20% including 2%; and

carrying the semiconductor substrate from the step of the thermal processing to the step of making the surface of the semiconductor substrate hydrophobic through the carrying compartment,

the humid atmosphere having the prescribed humidity higher than the first to the third dehumidified atmospheres.